

Research Article

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Egophoricity, Involvement, and Semantic Roles in Tibeto-Burman Languages

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Abstract: In this study, we explore typological aspects of egophoricity marking based on selected Tibeto-Burman languages. Conceptualizing egophoricity as an autonomous grammatical category that marks access to knowledge, we first discuss how egophoricity marking interacts with evidentiality in the Tibeto-Burman languages Shigatse Tibetan and Bunan. We then go on to explore the differences between the egophoricity systems of Shigatse Tibetan and Bunan, arguing that the variability of egophoricity within and across languages can be captured if we distinguish (i) constructions in which egophoricity markers express privileged access to knowledge due to actional involvement in the role of an event participant from (ii) constructions in which egophoricity markers express privileged access to knowledge due to epistemic involvement in the role of a “knower” whose precise relation to the event is not specified. We additionally introduce a set of five semantic roles to offer a more detailed description of the egophoricity systems of Shigatse Tibetan and Bunan (and also, albeit marginally, Kathmandu Newar and Galo). This study thus offers a new perspective on the variability of egophoricity systems in Tibeto-Burman and propagates an analytical approach that may also be helpful for analyzing egophoricity systems in other language families of the world.

Keywords: egophoricity, evidentiality, Tibeto-Burman languages

1 Introduction

Egophoricity is a comparatively rare phenomenon in natural languages and has attracted the attention of descriptivists and typologists only recently. It has often been studied resorting to a different terminology – most prominently, the opposition between “conjunct” and “disjunct” verb forms (Hale & Watters 1973); more recently, the marking of the “assertor’s involvement” (Creissels 2008). Based on an approach developed by Hargreaves (1991, 2005), we define egophoricity as a grammatical category that expresses access to knowledge or, more precisely, to the particular information conveyed in a given utterance. It typically appears marked on the predicate, showing a binary opposition between an egophoric form that denotes privileged access and an allophoric (or non-egophoric) form that denotes general, or non-privileged, access.¹

¹ Whether the egophoric-allophoric opposition (formally and/or semantically) is equipollent (as our terminology suggests) or privative depends on the specific construction in a particular language; we do not address this issue in the present paper. The natural cover term for both values is phoricity, which would perhaps include related but different concepts (e.g. anaphora and cataphora, as well as logophorics).

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This study explores, against the background of a number of selected Tibeto-Burman languages, some important parameters of variation of egophoricity. An in-depth exploration of interactions with other grammatical categories such as tense, mood, as well as with clause type, would merit a separate study; we limit ourselves here to outline the relevant interactions with evidentiality (Section 2). We then outline two parameters of language-internal and cross-linguistic variation as found within Tibeto-Burman, viz. involvement and semantic roles, and discuss aspectual correlates of these parameters (Section 3). Lastly, Section 4 closes the paper with some concluding remarks and some suggestions for further research.

2 Preliminaries

2.1 Defining egophoricity

Since Hale and Watter’s (1973) seminal description of egophoricity in Kathmandu Newar, our understanding of the phenomenon has been enhanced by an ever-growing body of descriptive work. Nevertheless, in spite of all these studies, there is still no generally accepted definition of egophoricity. In this article, we basically follow Hargreaves (1991, 2005), who defines egophoricity as a binary grammatical category that marks one’s access to mental states as privileged or non-privileged. We extend Hargreaves’s original conception and define egophoricity as a binary grammatical category that specifies whether one has privileged or non-privileged access to the knowledge that is conveyed in a proposition. The notion of privileged access as we understand it describes a privileged epistemic relationship that holds between a speech-act participant (SAP) and the knowledge conveyed in a proposition. Egophoric markers thus indicate that a given SAP has an inside perspective on an event and possesses the “epistemic authority” (see Hargreaves 1991) to assert the relevant facts. Allophoric markers, in contrary, indicate that a given SAP merely has an outside perspective on an event and does not possess any special epistemic authority to assert the relevant facts.

It is well known that egophoricity markers do not always relate to the perspective of the speaker but may relate to the perspective of other SAPs depending on the type of speech act. Most notably, there is a striking contrast between assertions, in which egophoricity markers commonly occur in combination with 1st person pronouns, and questions, in which egophoricity markers commonly occur in combination with 2nd person pronouns. This characteristic pattern is illustrated in Table 1 below.

Table 1: The prototypical distribution of egophoricity markers

	ASSERTIONS	QUESTIONS
1	EGO	ALLO
2	ALLO	EGO
3	ALLO	ALLO

A number of scholars have tried to account for these perspective shifts by postulating a category that comprises the different SAPs to which egophoricity markers may relate, e.g. “locutor” (Aikhenvald 2004), “informant” (Bickel 2008), “epistemic source” (Hargreaves 1991, 2005), “assertor” (Creissels 2008), and “source of information” (Tournadre 2008). For the following discussion, we adopt Creissels’ term “assertor”, as it captures the functional motivation of the category rather well and – unlike some other proposed terms – is not already associated with a different meaning. We understand the assertor as an epistemic role that refers to the SAP from whose perspective the epistemic status of a given proposition is evaluated. Our definition of the assertor and egophoricity is closely related to Kamio’s (1997) notion of territory of information, defined as one’s sphere of personal knowledge. The assertor can thus be thought of as the SAP against whose territory of information a proposition is profiled. Egophoricity, in turn, can be thought of as

a grammatical category that indicates whether or not the knowledge in a proposition is conceptualized as being part of the assertor's territory of information (see Dickinson 2016).

As noted above, the assertor role typically falls to the speaker in assertions and to the addressee in questions. This is illustrated by the following examples from Kathmandu Newar,² in which the egophoric form *-a* relates to the speaker in (1a) and (1b) and to the addressee in (1c) and (1d).

(1) Kathmandu Newar (Hale & Shrestha 2006)

- a. *Ji ənə wən-a.*
1SG there go-PST.EGO
'I went there.' (56)
- b. *Chə ənə wən-ə.*
2SG there go-PST.ALLO
'You went there.' (57)
- c. *Ji ənə wən-ə la?*
1SG there go-PST.ALLO Q
'Did I go there?' (56)
- d. *Chə ənə wən-a la?*
2SG there go-PST.EGO Q
'Did you go there?' (56)

Things are slightly more complex in the domain of reported speech, where two different speech events have to be distinguished: (i) a primary speech event, which minimally includes a primary speaker and a primary addressee, and (ii) a reported speech event, which minimally includes a reported speaker and a reported addressee (see Evans 2012). In reported speech clauses, the assertor role commonly falls to the reported SAPs, i.e., the reported speaker of a reported assertion and the reported addressee of a reported question. This is illustrated by the following Kathmandu Newar examples, in which the egophoric form *-a* relates to the perspective of the reported speaker in (2a) and (2b) and to the perspective of the reported addressee in (2c) and (2d).

(2) Kathmandu Newar

- a. *Wə: wə ənə wən-a dhəka: dhal-ə.*
3SG.ERG 3SG there go-PST.EGO QUOT say-PST.ALLO
'He said that he (himself) went there.' (57)
- b. *Wə: wə ənə wən-ə dhəka: dhal-ə.*
3SG.ERG 3SG there go-PST.ALLO QUOT say-PST.ALLO
'He said that he (someone else) went there.' (57)
- c. *Wə: ji-tə: ji gənə wən-a-gu dhəka: nen-ə.*
3SG.ERG 1SG-DAT 1SG why go-PST.EGO-AGR QUOT say-PST.ALLO
'He asked me where I had gone.' (57)
- d. *Wə: ji-tə: chi gənə wən-ə dhəka: nen-ə.*
3SG.ERG 1SG-DAT 2SG why go-PST.ALLO QUOT say-PST.ALLO
'He asked me where you had gone.' (58)

There is thus a strong correlation between the distribution of the assertor role and the parameter of clause type. In declarative clauses, the role commonly falls to the speakers, whereas in interrogative clauses, the role falls to the addressee. Nevertheless, the correlation is not perfect, as there are certain exceptions, e.g. rhetorical interrogative clauses. Such clauses differ from true interrogative clauses in the sense that they do not ask for information but rather assert facts (see Heritage 2012). In other words, a rhetorical

² Kathmandu Newar is a Tibeto-Burman language that is spoken by approximately 600,000 people in Central Nepal. All data have been adopted from Hale & Shrestha (2006).

interrogative clause profiles a proposition against the speaker's perspective rather than the addressee's. As a consequence, one often encounters a non-canonical distribution of egophoricity markers in such contexts. This is illustrated by the following Kathmandu Newar examples. (3a) is a true interrogative clause and thus profiles the relevant proposition against the knowledge of the addressee, who is asked to provide information. (3b), in turn, is a rhetorical interrogative clause. It profiles the same proposition against the knowledge of the speaker and expresses the speaker's belief that the relevant proposition is false.

(3) Kathmandu Newar

- a. *Ji ənə wən-ə la?*
 1SG there go-PST.ALLO Q
 'Did I go there?' (I cannot remember) (56)
- b. *Ji ənə wən-a la?*
 1SG there go-PST.EGO Q
 'Did I go there?' (I most certainly did not!) (56)

Finally note that the assertor is not an alternative construal of the category of person (as has sometimes been suggested in the literature, e.g. in Aikhenvald 2004). The latter is defined, as is customary, via the features [\pm speaker] and [\pm addressee], and the resulting values are the familiar ones from many languages, viz. [$+$ sp- $-$ ad] for 1st person (exclusive), [$-$ sp+ad] for 2nd person, [$-$ sp- $-$ ad] for 3rd person, and [$+$ sp+ad] for 1st person inclusive. One good reason for keeping these two categories apart is that all languages known so far that show egophoricity display it as a marking pattern on the verbal complex; their pronouns and pronominal elements invariably work with the run-of-the-mill (i.e. non-epistemic, speech-act based) definition of grammatical person. In the view we espouse here, grammatical person is defined in the same way across languages, based on speech-act roles (with languages differing as to which values they instantiate, and how); some languages additionally feature a grammaticalized system of elements that denote epistemic role.

2.2 Egophoricity and evidentiality

The grammatical status of egophoricity and its relationship to other grammatical categories associated with knowledge such as evidentiality and epistemic modality (all of which we will subsume under the label epistemic markers here) is still a matter of dispute.

We distinguish egophoricity from these two notions in this study. First, when asserting a proposition p , the speaker may comment on how certain (s)he is that p is true. In other words, the utterance can become tagged with information about how (im)possible, or how (im)probable, the denoted state of affairs is, according to the speaker; this is epistemic modality (see e.g. De Haan 2006). Second, when asserting a proposition p , the speaker may alternatively provide information as to how (s)he obtained his/her knowledge about p . In other words, the utterance may become tagged with information about the source of the speaker's knowledge about the denoted state of affairs; this is evidentiality (see e.g. Aikhenvald 2004).

Given the definition of egophoricity we provided in the introduction (i.e. privileged access to knowledge about a state of affairs), it is evident that there might be interesting correlations between egophoricity and individual values of these two related categories. It is equally evident, however, that neither category can be mechanically reduced to any other one. On the other hand, just as dynamic and deontic modals may resort to similar means of expression as epistemic modals, as well as the latter and evidentials, epistemic modals and evidentials can become conflated with egophoricity. (By "conflated" we mean not only that similar or the same formal means may develop in such a way that they mark egophoricity and evidentiality, for example, but also that one particular morpheme may express both categories in an instance of cumulative exponence.) The matter is an intricate one, both at the conceptual and the empirical level, and it is not our intention to treat the legitimate concerns voiced by scholars as to the adequacy of the approach espoused here (e.g. Tournadre & LaPolla 2014) in a cavalier fashion. Rather, we chose not to focus on these intricacies

and to use a comparatively simple model where categories are distinct in principle in order to more easily explore some specific formal and content-related interactions.

3 Egophoricity in Shigatse Tibetan and Bunan

In the following subsections, we describe the interaction of egophoricity and evidentiality in two Tibeto-Burman languages of the Himalayas: Shigatse Tibetan and Bunan.³ We chose these two languages for two reasons. First, we had access to comprehensive grammatical descriptions as well as native speakers for both languages. Second, the egophoricity systems of Shigatse Tibetan and Bunan show a considerable deal of variation both within and between the two languages. Accordingly, Shigatse Tibetan and Bunan are ideal candidates for exploring the typological parameters along which egophoricity systems may vary. We limit ourselves to the discussion of present/imperfective as well as past/perfective paradigms and exclude future and perfect forms.⁴

3.1 Present tense / imperfective aspect

The imperfective paradigm of Shigatse Tibetan comprises three forms: (i) an egophoric form $-k\bar{i}=j\bar{a}e$, (ii) an allophoric direct evidential form $-k\bar{i}$, and (iii) an allophoric indirect evidential form $-k\bar{i}=joap\bar{i}e$. This is schematically presented in Table 2 below.

Table 2. Egophoricity and evidentiality in Shigatse Tibetan (imperfective)

EGO	ALLO	
	DIR	INDIR
$-k\bar{i}=j\bar{a}e$	$-k\bar{i}$	$-k\bar{i}=joap\bar{i}e$

Shigatse Tibetan speakers use the imperfective egophoric form $-k\bar{i}=j\bar{a}e$ to describe actions they perform volitionally. The resulting verb forms may be interpreted as either progressive (4a) or habitual (4a)–(4b).

(4) Shigatse Tibetan

- a. $\bar{N}a \quad p\bar{a} \quad sa-k\bar{i}=j\bar{a}e.$
 1SG roasted.barley.flour eat.IPFV-NMLZ=IPFV.EGO
 ‘I am eating roasted barley flour.’ / ‘I eat roasted barley flour.’ (97)
- b. $K^h\bar{o}t\bar{y} \quad \eta\bar{i}e \quad l\bar{a} \quad jani\bar{e} \quad p^h\bar{a}p-k\bar{i}=j\bar{a}e.$
 back.then 1SG.ERG pass from.up.there come.down-NMLZ=IPFV.EGO
 ‘Back then I (always) used to come down from the pass up there.’ (83)

In addition, speakers use egophoric forms to describe other event types that occur habitually (5). This is use of $-k\bar{i}=j\bar{a}e$ presupposes, however, that the relevant event can be construed as the result of a cause-effect

³ Shigatse Tibetan is a Tibetic language that is spoken in and around Shigatse, the second largest city of Central Tibet. Shigatse Tibetan is one of the most prestigious Tibetan varieties of western Central Tibet and is considered to be the second most important Central Tibetan variety after Lhasa Tibetan, to which it is closely related (see Haller & Haller 2007). The Shigatse Tibetan data have been adopted from Haller & Haller (2007). Bunan (a.k.a. Gahri) is a West Himalayish language that is spoken by approximately 4,000 speakers in Himachal Pradesh, Northern India. The Bunan data have been adopted from Widmer (forthcoming).

⁴ It is in order to add that both languages show egophoricity in the future subparadigms as well. By contrast, only Shigatse Tibetan shows egophoricity with perfect forms; in Bunan, the egophoricity distinction, perhaps due to its relatively young age (see Widmer 2015), does not appear in perfect forms.

relationship with which they are well-acquainted. Otherwise, the use of the marker $-kī=jæ$ is not possible.⁵

(5) Shigatse Tibetan

- a. *N̄a tākpā: n̄a:-kī / *n̄a:-kī=jæ.*
1SG always be.sick-IPFV.DIR.ALLO / be.sick-NMLZ=IPFV.EGO
'I keep getting sick all the time.' (p.c.)
- b. *N̄a n̄i si̯e-nā n̄a:-kī=jæ.*
1SG this eat.PFV-COND be.sick-NMLZ=IPFV.EGO
'If I eat this, I become sick.' (170)
- c. *P^hisā=ni ṭs^ḥe-nā ny-kī=jæ.*
child=DEF be.afraid-COND cry-NMLZ=IPFV.EGO
'If the child becomes afraid, it cries.' (171)

Allophoric forms are used to describe events that are not volitionally instigated by speakers (6). These may either be events that do not involve volitional acting (6a)–(6b), or events that are prototypically controllable, but not performed consciously.⁶

(6) Shigatse Tibetan

- a. *l̄a t̄a-kī.*
1SG be.hungry-IPFV.DIR.ALLO
'I am hungry.' (130)
- b. *l̄a t̄a-la ṭs^ḥe-kī.*
1SG tiger-DAT be.afraid-IPFV.DIR.ALLO
'I am afraid of the tiger.' (136)
- c. *l̄i̯e ŋū:=ni r̄ā-la ṭs̄ə-kī.*
1SG.ERG money=DEF 2SG-DAT give-IPFV.DIR.ALLO
'I am inadvertently giving the money to you.' (171)

The present tense paradigm of Bunan differs from the Shigatse imperfective paradigm in two ways. First, the paradigm is only based on a simple egophoricity opposition, that is to say, there is no distinction between direct evidentiality and indirect evidentiality with allophoric forms. Second, the egophoricity distinction is paired with a singular-plural number distinction. The relevant forms are given in Table 3 below.

Table 3. Egophoricity in Bunan (present tense)

EGO	ALLO
$-ek$ (SG) / $-^hek$ (PL)	$-are$ (SG) / $-^hak$ (PL)

Bunan speakers use the egophoric endings $-ek$ / $-^hek$ to describe prototypically controllable events that they perform volitionally (7a) and mental states or body processes that are only directly accessible to themselves (7b).

⁵ DeLancey (1986, 1990) describes a similar restriction for the etymologically related imperfective egophoric form in Lhasa Tibetan. However, note that there appear to be Central Tibetan varieties in which this constraint does not exist. Garrett (2001: 174) gives the sentence *deng.sang nga pas nga-gi-yod* [these.days 1SG very sick-NMLZ-IPFV.EGO] 'These days I am very sick.', in which the event of being sick is not portrayed as the result of a cause-effect relationship.

⁶ We use the term "prototypically controllable event" to refer to events that are prototypically instigated by a volitionally acting agent (e.g. *run*, *make*, *give*) and the term "prototypically noncontrollable event" to refer to events that are prototypically instigated by a nonvolitionally acting agent (e.g. *fall*, *lose*, *forget*).

(7) Bunan

a. *Gi nalma kjum-k-ek.*

1SG yarn ply-INTR-PRS.EGO.SG

'I am plying yarn.'

b. *Gi tɕʰat-k-ek.*

1SG become.exhausted-INTR-PRS.EGO.SG

'I am getting exhausted.'

By contrast, speakers use allophoric forms to describe perceptions of stimuli that are not exclusively accessible to themselves but also directly accessible to others (8a) and events that are prototypically uncontrollable (8b).

(8) Bunan

a. *Gi=tok karma tant-k-are.*

1SG=DAT star see-INTR-PRS.ALLO.SG

'I can see the stars.'

b. *Gi dat-k-are.*

1SG fall-INTR-PRS.ALLO.SG

'I am falling!'

There are two further differences between egophoricity marking in Shigatse Tibetan and Bunan that are noteworthy. First, the Bunan egophoric forms *-ek* and *-^hek* cannot be used to describe any habitual or generic situation that is part of the assertor's intimate and personal sphere of knowledge if the assertor (e.g. *If the child becomes afraid, it cries*; cf. (5c) above). Rather, the marker is bound to contexts in which speakers assume the role of a volitional agent or an experiencer of an internal stimulus (cf. (7) above). Second, the Bunan allophoric forms *-are* and *-^hak* cannot be used to express nonvolitionality in combination with verbs that denote prototypically controllable events (e.g. *I am inadvertently giving the money to you*; cf. (6c) above). Table 4 below compares the present/imperfective egophoricity systems of Shigatse Tibetan and Bunan.

Table 4. Egophoricity and evidentiality in the two languages (present / imperfective)

	EGO	ALLO	
		DIR	INDIR
Shigatse Tibetan	<i>-kī=jæ</i>	<i>-kī</i>	<i>-kī=joapie</i>
Bunan	<i>-ek</i> (SG) / <i>-^hek</i> (PL)	<i>-are</i> (SG) / <i>-^hak</i> (PL)	

3.2 Past tense / perfective aspect

The perfective paradigm of Shigatse Tibetan comprises four forms and is thus more complex than the imperfective paradigm. The relevant forms are (i) an egophoric form *-pa=jī* for actors, (ii) an egophoric form *=tɕu* for undergoers, (iii) an allophoric direct evidential form *-so*, and (iv) an allophoric indirect evidential form *-papie*; see Table 5 below.

Table 5. Egophoricity and evidentiality in Shigatse Tibetan (perfective)

EGO		ALLO	
ACT	UND	DIR	INDIR
<i>-pa=jī</i>	<i>=tɕu</i>	<i>-so</i>	<i>-papie</i>

The actor-egophoric form *-pa=jĩ* is used to describe one-time past events that speakers instigated volitionally (9). Note that *-pa=jĩ* cannot be used to describe recurring events in the past. Only the imperfective ending *-kĩ=jæ* can serve this function as exemplified in (4b) above.

(9) Shigatse Tibetan

*Kʰōtỳ ɲiɛ lɑ janiè pʰap-wa=jĩ.*⁷
 back.then 1SG.ERG pass from.up.there come.down-NMLZ=PFV.EGO.ACT
 ‘Back then I (once) came down from the pass up there.’ (p.c.)

The undergoer-egophoric form *=tcu*, in turn, is used to describe events in which speakers experienced an internal state (10a), perceived an external stimulus (10b), performed a prototypically noncontrollable event (10c), or partook in a process or in which they can be construed as the goal of a (di)transitive event (10d).

(10) Shigatse Tibetan

- a. *ŋɑ tɑɑ=tcu.*
 1SG be.hungry=PFV.EGO.UND
 ‘I was hungry.’ (185)
- b. *Tʰōɲ=tcuā?*
 see=PFV.EGO.UND.Q
 ‘Did you see it?’ (167)
- c. *ŋɑ tʰēmpā-la tʰōɑ-ne ri:=tcu.*
 1SG threshold-DAT stumble.PFV-CVB fall.over=PFV.EGO.UND
 ‘I stumbled over the threshold and fell over.’ (131)
- d. *Kʰœ ɲɑ-la tʰep=tci tē:=tcu.*
 3SG.ERG 1SG-DAT book=INDEF give=PFV.EGO.UND
 ‘He gave me a book.’ (185)

In addition, speakers use *=tcu* to refer to past events with which they are well-acquainted, in which case the marker often implies that the event took place repeatedly in the past (11). Note, however, that the marker *=tcu* cannot be used to express acquaintance with prototypically controllable events that occurred in the past. Only the marker *-kĩ=jæ* can serve this function (cf. (4b) above).

(11) Shigatse Tibetan

- a. *ŋɑ ɲanĩ tʂēpō ɲɑ:=tcu.*
 1SG last.year very be.sick=PFV.EGO.UND
 ‘I was sick often last year.’ (p.c.)
- b. *Pʰisā=ni ɲanĩ tʂēpō ɲɑ:=tcu.*
 child=DEF last.year very be.sick=PFV.EGO.UND
 ‘The child was sick often last year.’ (Implication: The child belongs to the speaker’s family) (185)

The allophoric marker *-so* is used for events that speakers observed directly, but which they do not consider to be part of their personal knowledge (12a). In combination with prototypically controllable events, the marker *-so* expresses unconscious acting on behalf of the speaker (12b).

(12) Shigatse Tibetan

- a. *Kʰœ piēmā-la tʰep=tci tē:-so.*
 3SG.ERG Padma-DAT book=INDEF give-PFV.DIR.ALLO
 ‘He gave a book to Padma.’ (184)

⁷ The nominalizing suffix *-pa*, which is an integral part of the egophoric form, takes the form *-wa* after vowels.

- b. *Niɛ rã=k^{hi} pã=k^{ho} siɛ-so.*
 1SG.ERG 2SG=GEN kneaded.tsampa=DEF eat.PFV-PFV.DIR.ALLO
 ‘I inadvertently ate your kneaded tsampa!’ (184)

Finally, the allophoric marker *-papie* is used for events that speakers did not observe directly, e.g. inferred or assumed events (13a). In combination with prototypically controllable events, the marker *-papie* expresses unconscious acting on behalf of the speaker (13b).⁸

(13) Shigatse Tibetan

- a. *Tɕ^ha=ni p^hã:tcẽ piẽmiẽ kō:-lapie.*
 tea=DEF probably Padma.ERG cook-PFV.INDIR.ALLO
 ‘Probably it was Padma who cooked the tea.’ (185)
- b. *Niɛ p^hã:tcẽ kã:jœ=k^{ho}=jie tɕã-wapie.*
 1SG.ERG probably cup=DEF=ADD break-PFV.INDIR.ALLO
 ‘Probably I also broke the cup (in the state of drunkenness).’ (185)

Bunan has four kinds of markers in the past tense: (i) an actor-egophoric marker, (ii) a composite undergoer-egophoric marker, (iii) allophoric direct evidential markers, and (iv) allophoric inferential evidential markers. In addition to the number-related allomorphy shown by some of the markers, some of the elements display different allomorphs based on the (transitivity-related) conjugation class of the verb to which they attach.⁹ Table 6 below gives an overview of the different forms.

Table 6. Egophoricity and evidentiality in Bunan (past)

	EGO		ALLO	
	ACT	UND	DIR	INDIR
INTR	<i>-et</i>	<i>-ku+DIR.ALLO</i> ¹¹	<i>-dza (SG) / -ts^ha (PL)</i>	<i>-dʒi (SG) / -tɕ^hok (PL)</i>
MID	<i>-et</i>	<i>-ku+DIR.ALLO</i>	<i>-dza (SG) / -ts^ha (PL)</i>	<i>-dʒi (SG) / -tɕ^hok (PL)</i>
TR	<i>-men</i>	<i>-ku+DIR.ALLO</i>	<i>-dza (SG) / -ts^ha (PL)</i>	<i>-ta</i>

Bunan speakers use actor-egophoric forms to describe prototypically controllable events that they performed volitionally (14a) and mental states or body processes that involved an internal stimulus that was only directly accessible to themselves (14b).

(14) Bunan

- a. *Gi=dzi dzamen lik-Ø-men.*
 1SG=ERG.SG food make-TR-PST.EGO.ACT
 ‘I cooked food.’
- b. *Gi dunt^hak=tiki ɕal-et.*
 1SG week=INDEF have.diarrhea-PST.EGO.ACT
 ‘I suffered from diarrhea for one week.’

⁸ Note that the marker *-papie* has the regular allomorphs *-lapie* and *-wapie*, which appear in these examples.

⁹ These verb classes are distinguished by a formal element: intransitives take *-k* in the present and are unmarked in the past; middles take *-ɕ* in the present and the past; transitives take *-tɕ* in the present and a suffix *-Ø* in the past.

¹⁰ Since egophoric and allophoric are opposing values of one grammatical category, the co-occurrence of the egophoric form *-ku-* and the allophoric form *-dza (SG) / -ts^ha (PL)* in one predicate may appear contradictory at first. Nevertheless, the combination of the two markers becomes explicable if we consider that the allophoric form *-dza (SG) / -ts^ha (PL)* does not stand in a direct functional opposition with the undergoer-egophoric form *-ku* but with the actor-egophoric form *-et ~ -men* instead. A similar situation has been described for Guambiano / Nam Trik (Barbacoan; southwestern Colombia), in which the undergoer-egophoric form *-ta* regularly co-occurs with the allophoric form *-an* (Gonzales & Bruil 2016).

In addition, actor-egophoric forms can be used to describe events with which the speaker is well-acquainted. Note that there are differences between speakers of different age groups in terms of the use of actor-egophoric forms. Members of the younger generations only use actor-egophoric forms to describe events in which they assumed the role of the most agent-like participant (15a)–(15b). Members of the oldest generation also use such forms when the speaker assumes a less agentive role or does not occur as a core argument at all (15c)–(15d).

(15) Bunan

- a. *Itcik bar dat-et!*
how.many times fall-PST.EGO.ACT
'How many times have I fallen (from trees in the orchard)!'
- b. *helikopter=tok gardza=man el-ka=astok, gi=dzi epo tshor-Ø-men.*
helicopter=DAT Lahaul=ALL go-ICVB=SIM 1SG=ERG good fall-PST.EGO.ACT
'When travelling to Lahaul by helicopter, I have always felt well.'
- c. *Wa the rinpotce=dzi gi=tok cat-Ø-men.*
FOC this Rinpoche=ERG.SG 1SG=DAT tell-TR-PST.EGO.ACT
'And that is what the Rinpoche told me.'
- d. *K^horek am-et ka apa!*
later come.HON-PST.EGO.ACT ASSER grandmother.ADDINV
'[That monk] came much later [to our monastery]!'

Speakers use undergoer-egophoric forms to describe (di)transitive events in which they were the undergoer of some event, e.g. a patient (16a) or a recipient (16b). Unlike the Shigatse Tibetan undergoer-egophoric form =*təu*, however, the Bunan marker *-ku* can only occur in combination with the allophoric direct evidential marker *-dza* / *-ts^ha*. Also, the marker is only commonly encountered in the speech of the oldest generation, and even there it is not obligatory. Accordingly, (16a) and (16b) would also be grammatical without the undergoer-egophoric form.

(16) Bunan

- a. *Tal=dzi gi=tok k^het-Ø(-ku)-dza.*
3=ERG.SG 1SG=DAT beat-TR-EGO.UND-PST.DIR.ALLO.SG
'He beat me.'
- b. *Gi=tok niskin petca da-Ø(-ku)-dza.*
1SG=DAT two book give-TR-EGO.UND-PST.DIR.ALLO.SG
'He gave me two books.'

Allophoric direct evidential forms are used to describe events which were directly witnessed by speakers but to which they do not possess privileged access by virtue of assuming the role of agent or an experiencer of a mental state or body process (17a)–(17c).

(17) Bunan

- a. *Dordze=dzi dzamen lik-Ø-dza.*
Dorje=ERG.SG food make-TR-PST.DIR.ALLO.SG
'Dorje cooked food.' (I saw him cook)
- b. *Naro nindza el-ka=astok soj ts^hor-s-ε-dza ka.*
morning EX.PST.SG go-ICVB=SIM cold feel-DETR-MID-PST.DIR.ALLO.SG ASSER
'It was morning, (so) while we were walking, I felt cold.'
- c. *Gi pitan=ki tankar=tok bup-dza.*
1SG door=GEN threshold=DAT make-PST.DIR.ALLO.SG
'I stumbled over the door's threshold.'

Lastly, allophoric inferential evidential forms are used to describe events which were not directly witnessed by speakers (18a) or which were not performed consciously by them (18b).

(18) Bunan

- a. *Dordze=dzi dzamen lik-Ø-ta.*
 Dorje=ERG.SG food make-TR-PST.INDIR.ALLO
 ‘Dorje cooked food.’ (I can see the meal that he cooked)
- b. *O gi=dzi hāj t^hukpa tun-dzi.*
 INTERJ 1SG=ERG.SG 2SG.GEN soup drink-PST.INDIR.ALLO.SG
 ‘Oh, I inadvertently drank from your soup!’

Table 7 below gives a synoptic overview of the egophoricity markers of Shigatse Tibetan and Bunan (allomorphy is not represented).

Table 7. Egophoricity and evidentiality in Shigatse Tibetan and Bunan

		EGO		ALLO	
		ACT	UND	DIR	INDIR
Shigatse	IPFV	-kī=jæ	–	-kī	-kī=joapie
	PFV	-pa=jī	=tɕu	-so	-papie
Bunan	PRS	-ek / - ^h ek	–	-are / - ^h ak	
	PST	-men	-ku+ALLO	-dza / -ts ^h a	-ta

4 Modeling egophoricity in a typological perspective

In this section, we model the egophoricity systems of Shigatse Tibetan and Bunan in a typological perspective in order to gain a better understanding of the language-internal and cross-linguistic variability of egophoricity. Before going into this matter, however, we first introduce and discuss two major parameters of variation: involvement and semantic roles.

4.1 Two parameters of variation

4.1.1 Involvement

Bickel (2008) postulates a parameter “scope” to capture some aspects of the cross-linguistic variation of epistemic markers. His proposal is based on the observation that epistemic markers can be used to mark any kind of proposition in some languages (“epistemic proposition marking”) but are tied to specific arguments or semantic roles in others (“epistemic argument marking”).¹¹ We essentially adopt Bickel’s approach for the following discussion of egophoricity marking, but use a somewhat different terminology. Instead of his term “scope” (2008), we adopt the term “involvement”, a notion that has figured prominently in Creissels’ (2008) approach, but has also been proposed by other scholars (e.g. Hein 2001; San Roque et al. forthcoming; *inter alia*).¹² Drawing on Bickel’s (2008) ideas, we assume that egophoricity markers can express two different

¹¹ A somewhat similar approach has been developed by Tournadre (2008), who uses the term “scope” to describe the distribution of egophoric markers in Lhasa Tibetan, distinguishing between “narrow scope” and “wide scope” egophorics. Tournadre’s dichotomy comes close to Bickel’s (2008) distinction between “epistemic argument marking” and “epistemic proposition marking”, but is not identical with it.

¹² We do not use the term “scope” because this term is already established in the literature with a rather different meaning. In formal semantics and other areas of theoretical linguistics, the concept of scope is commonly used to denote the modification relationship that a semantic operator bears to specific constituents within an utterance (see Cann 1993: 8–9). Bickel (2008) uses the term “scope” in a different sense to describe whether an egophoric marker is tied to a specific argument role within a proposition or to the proposition as a whole.

types of the assertor's involvement in an event: (i) "actional involvement" and (ii) "epistemic involvement". In the former case, egophoric markers indicate that the assertor has privileged access to the knowledge about an event because (s)he was directly involved in it. In other words, such constructions profile the assertor in her / his role as an event participant. In the case of epistemic involvement, egophoric markers indicate that the assertor has privileged access to the knowledge about an event because (s)he is well-acquainted with the relevant facts. Accordingly, such constructions profile the assertor in her / his role as a "knower" without specifying whether the assertor directly participated in an event.

The distinction between these two types of involvement is illustrated in Figure 1 based on a semantic representation in the form of a logical structure. The logical structure describes a semantically unspecified event predicate, which takes the arguments ARG_1 and ARG_2 (and possibly further arguments). These arguments are directly involved in the event in question. The functional predicate *know*, in turn, takes the two arguments: ARG_0 and the event predicate. The first argument of *know* corresponds to the knower role and can be thought of as an experiencer at the meta-linguistic level. Egophoric markers can either portray the assertor as an argument of the event predicate, in which case they express privileged access due to actional involvement, or they can portray the assertor as an argument of the predicate *know*, in which case they express privileged access due to epistemic involvement.

KNOW [ARG_0 , *predicate*' [ARG_1 , ARG_2 , ...]]

Figure 1: Logical structure modelling the two types of involvement

In the following, we illustrate the differences between actional involvement and epistemic involvement with two examples: the Shigatse Tibetan imperfective egophoric form *-kī=jæ* and the Bunan past egophoric form *-et ~ -men*, which can express both actional and epistemic involvement.

We begin our discussion with the imperfective egophoric form *-kī=jæ*. If the marker *-kī=jæ* is interpreted as denoting actional involvement, it profiles the assertor in the role of a volitional instigator of a specific, individual event. As a consequence, the actional construal of an egophoric form is associated with a progressive reading of the relevant verb form. If the marker is interpreted as denoting epistemic involvement, it profiles the assertor in her / his role of a knower who is familiar with the event in question because (s)he has experienced the relevant process in the past. The form does not specify whether the assertor participated in the respective event or whether (s)he merely observed it without directly participating in it. As acquaintance with an event often entails that the event took place repeatedly in the past, the epistemic construal of the marker is usually associated with a habitual reading of the relevant verb form. It is important to add that the epistemic interpretation of *-kī=jæ* is only possible if the relevant event can be construed as the consequence of a cause-effect relationship (see DeLancey 1986, 1990 for a more elaborate discussion of the relationship between egophoric marking and event causation in Lhasa Tibetan). In combination with experiencer events and prototypically noncontrollable events, the epistemic construal of the marker *-kī=jæ* thus presupposes the presence of a dependent clause that introduces a cause for the event described by the main clause.

The following example sentences illustrate the difference between the actional involvement and the epistemic involvement construal of egophoric markers in combination with the verbs *sq-* 'eat', *nq:-* 'be sick', and *ny-* 'cry'.

(19) Shigatse Tibetan

- a. *Nq pà* *sq-kī=jæ*.
 1SG roasted.barley.flour eat.IPFV-NMLZ=IPFV.EGO
 (i) 'I am eating roasted barley flour.' (actional involvement → progressive reading)
 (ii) 'I eat roasted barley flour.' (97) (epistemic involvement → habitual reading)
- b. *Nq nq:-kī* / **nq:-kī=jæ*.
 1SG be.sick-IPFV.ALLO / *be.sick-NMLZ=IPFV.EGO
 'I am sick.' (progressive reading) (p.c.)

- c. *N̥a ni siɛ-nā na:-kī=jæ.*
 1SG this eat.PFV-COND be.sick-NMLZ=IPFV.EGO
 ‘If I eat this, I become sick.’ (170) (epistemic involvement → habitual reading)
- d. *P^hisā=nī tɕ^he-nā ny-kī=jæ.*
 child=DEF be.afraid-COND cry-NMLZ=IPFV.EGO
 ‘If the child becomes afraid, it cries.’ (171) (epistemic involvement → habitual reading)

In (19a), the egophoric form can be interpreted as expressing privileged epistemic access due to both actional and epistemic involvement. In the first case, the egophoric form portrays the assertor as an agent who is performing the act of eating at the time at which the utterance is made. This interpretation is captured in translation (i), in which *sq-kī=jæ* is translated with an English present progressive form. In the second case, the egophoric form portrays the assertor as a knower who provides personal knowledge about a habitually occurring event that (s)he gained through prior experience. This interpretation is captured in translation (ii), in which *sq-kī=jæ* is translated with an English simple present form. Note that in this context, the epistemic construal of *-kī=jæ* does not presuppose the presence of a dependent clause that introduces a cause for the event. That is because the ultimate cause for the occurrence of the event lies in the assertor’s volition. As the verb *sq-* ‘eat’ denotes a prototypically controllable event, the cause-effect relationship is entailed by the semantics of the verb (see DeLancey 1990: 302–303).

In (19b), in which the assertor expresses the fact that (s)he is currently sick, egophoric marking is not possible in spite of the fact that the assertor is directly involved in the relevant event. This is because the form *-kī=jæ* can exclusively express privileged access due to actional involvement if the relevant event involves a volitional agent. Since the semantics of the verb *na:-* ‘be sick’ is not compatible with such an interpretation, the imperfective allophoric form *-kī* has to be used. The use of *-kī=jæ* with the verb *na:-* ‘be sick’ only becomes possible if the event of being sick is portrayed as the consequence of a causal relationship. These conditions are met in (19c), in which the assertor describes the fact that (s)he becomes sick when eating a specific kind of food. In this case, however, the privileged access that licenses egophoric marking is not given through the assertor’s actional involvement in the event but through her / his epistemic involvement. In other words, the assertor has privileged access to this knowledge not because (s)he is currently sick but because (s)he became sick in the past after having eaten the respective kind of food. The fact epistemic involvement does not necessarily entail direct participation in an event is evidenced by (19d). Here, the assertor describes a child’s natural reaction to being afraid. In this example, the assertor’s privileged access cannot be due to actional involvement, as (s)he is not an argument of the predicate. Accordingly, the assertor’s privileged access is again due to epistemic involvement, which naturally gives rise to a habitual interpretation.¹³

The difference between privileged access due to actional involvement and privileged access due to epistemic involvement also plays an important role in the use of the past actor egophoric *et ~ men* in Bunan. However, epistemic involvement has a somewhat different semantic connotation in the case of the endings

¹³ Two reviewers raised the question of whether it is sensible to distinguish between actional involvement and epistemic involvement in combination with events in which the assertor is directly involved as a participant, and whether it would not be more adequate to interpret actional and epistemic involvement as a function of the assertor’s participation or non-participation in an event. We believe that such an approach would fall short for the following reason: If one puts actional and epistemic involvement on a level with event participation and event non-participation, one can no longer explain why the imperfective egophoric form *-kī=jæ* can have a habitual reading in combination with all predicate classes, while a progressive reading is restricted to prototypically controllable predicates. By contrast, assuming that the distinction between actional and epistemic involvement is independent of the assertor’s participation or non-participation in an event makes it possible to explain these aspectual differences in terms of the construal of the egophoric marker. The approach that we argue for has therefore more explanatory power than a model that treats even participation and involvement as interdependent notions. In addition, the fact that Bunan shows a very similar pattern of variation (see below in the main body of text) suggests that this distinction is not an idiosyncrasy of Shigatse Tibetan but is also of importance for other Tibeto-Burman languages. To be sure, it is conceivable that there are certain constructions in a language in which the distinction between actional and epistemic involvement is neutralized. It is equally conceivable that there are languages in which egophoric markers can either only express actional or epistemic involvement but not both types. However, the data currently available for Shigatse Tibetan and Bunan suggest that it is justified to treat the assertor’s involvement in an event and the assertor’s participation in an event as independent notions.

-et ~ -men, as the marker is associated with an experiential or an assertive reading rather than a habitual reading in such contexts. Consider the following example sentences.

(20) Bunan

a. *Gi nepal=maŋ el-et.*

1SG Nepal=ALL go-PST.EGO.ACT

‘(i) I went to Nepal.’ (actional involvement → past / perfective reading)

‘(ii) I have been to Nepal.’ (epistemic involvement → experiential reading)

b. *Gi buʈa=tok=tɕi dat-dza / *dat-et.*

1SG tree=DAT=ABL fall-PST.DIR.ALLO.SG / *fall-PST.EGO.ACT

‘I fell from a / the tree.’

c. *Itɕik bar dat-et.*

How.many.times times fall-PST.EGO.ACT

‘How many times have [I] fallen [from trees in the orchard]!’ (epistemic involvement → experiential reading)

d. *Kʰorek am-et ka apa!*

later come.HON-PST.EGO.ACT ASSERT grandmother.ADDINV

‘[I know that] [that monk] came much later [to our monastery]!’ (epistemic involvement → assertive reading)

In (20a), the egophoric marker *-et* can express privileged access both due to actional involvement and epistemic involvement. In the first case, the assertor is portrayed as the volitional instigator of a specific past event, which results in the past reading captured by translation (i). In the second case, the assertor is portrayed as a knower who has experienced the relevant event before in her / his life, which results in the experiential reading captured by translation (ii). In (20b), the assertor reports describes her / his falling from a tree as a specific and individual event. Since the egophoric marker *-et* can only express privileged access due to actional involvement in combination with prototypically controllable events and certain experiencer events (see § 3.2), egophoric marking is not possible when conveying this meaning. However, egophoric marking is possible if the assertor wants to express that (s)he has intimate knowledge about the relevant facts. This is the case in example (20c), which was uttered by a language consultant on asking whether he had ever fallen from a tree when working in his apple orchard. With his answer, he portrayed himself as having intimate knowledge about this event not because he had recently fallen from a tree but because he had fallen from trees many times in his life. As in Shigatse Tibetan, egophoric markers can also express privileged access due to epistemic involvement in combination with events in which the assertor was not directly involved.¹⁴ This is illustrated in (20d), in which the assertor states that a given monk had joined the local monastery much later than the addressee had previously claimed. As noted above, such statements sometimes display an emphatic assertive connotation, which is captured by the expression *[I know that]* in the English translation.

Our survey of selected constructions in Shigatse Tibetan and Bunan demonstrates that the distinction between actional and epistemic involvement is crucial for the egophoricity systems of those two languages. At the same time, it is evident that the notion of involvement is not sufficient to adequately describe the functional range of individual egophoric markers. We additionally have to take into account what kind of semantic role the assertor plays in a given event. This leads us to the next parameter of variation, which will be discussed in the following section.

¹⁴ Note, however, that this is only common in the speech of the oldest Bunan speaker generation (see § 3.2).

4.1.2 Semantic roles

In Shigatse Tibetan and Bunan, egophoric markers cannot express actional and / or epistemic involvement in any given context. Rather, they can only be used if the assertor assumes certain semantic roles. This is for example evident in the case of the Bunan past actor-egophoric marker *-et ~ -men* as used by young, innovative speakers. This marker can only express actional involvement if the assertor acts as the volitional instigator of an event or as the experiencer of an internal mental state or stimulus. In addition, it can only express epistemic involvement if the assertor assumes the role of the most agent-like participant in an event. In all other contexts, egophoric marking is not possible. Accordingly, semantic roles are essential for describing the functional range of egophoricity markers in both Shigatse Tibetan and Bunan.

Evidence from Tibeto-Burman suggests that egophoricity systems of Tibeto-Burman languages can be modeled on the basis of five semantic roles: (i) a volitional agent ($AGT_{[+VOL]}$), (ii) a nonvolitional agent ($AGT_{[-VOL]}$), (iii) an “endopathic” experiencer (EXP_{ENDO}), (iv) an “exopathic” experiencer (EXP_{EXO}), and (v) a macro-role of sorts we label undergoer (UND).¹⁵

The volitional agent is the agentive participant of a prototypically controllable event (e.g. *run, make, give*), while the nonvolitional agent is the agentive participant of a prototypically uncontrollable event (e.g. *fall, forget, lose*). The role of the endopathic experiencer has been adopted from Tournadre (2008), and we here additionally introduce the role of the exopathic experiencer as an antonym. The former is the experiencer in a state of affairs that involves a mental state or process that is only directly accessible to the experiencer herself / himself (e.g. *be hungry, be thirsty, be exhausted*); we also include states of affairs in which the participant engages in a cognitive activity (e.g. *think, presume*) or experiences a bodily process that is related to some internal stimulus (e.g. *vomit, cry, laugh*). The exopathic experiencer, in turn, is the experiencer in an event that involves an external stimulus that is equally accessible to other persons (e.g. *see, hear, smell*). Lastly, the undergoer corresponds to all other non-agentive roles, most importantly patients, themes, and recipients.¹⁶

There is evidence that these five semantic roles can be located on a hierarchy that describes the relative probability of a given semantic role to be associated with the expression of privileged access due to actional involvement. This hierarchy is given in Figure 2 below.¹⁷

$$AGT_{[+VOL]} > EXP_{ENDO} > EXP_{EXO} > AGT_{[-VOL]} > UND$$

Figure 2: The hierarchy of semantic roles

This hierarchy emerges from a comparison of selected Tibeto-Burman languages in which egophoric markers express privileged access due to actional involvement in combination with different semantic roles. The languages in question are Shigatse Tibetan, Bunan, Kathmandu Newar, and Galo.¹⁸ Example sentences Shigatse Tibetan and Bunan have already been given in the preceding sections and will be discussed in more detail in § 4.2 below. In the following, we will provide some more discussion of egophoricity marking in Kathmandu Newar and Galo to illustrate how egophoricity marking in those languages relates to the proposed hierarchy.

Consider the following sentences from Kathmandu Newar, which illustrate the use of the past egophoric marker *-ā* expressing actional involvement.

¹⁵ A similar model has been used by Daudey (2014) to describe egophoricity in the Tibeto-Burman language Wadu Pumi (Qiangic; south-western China). Unlike our model, however, Daudey's approach is framed in terms of verb types rather than semantic roles. Moreover, she distinguishes four verb types that are roughly equivalent to our roles (i) to (iv) but has no category corresponding to our role (v).

¹⁶ Note that we focus exclusively on central semantic roles like agent, patient, theme, experiencer, etc. here. More peripheral arguments like beneficiaries, possessors, etc. would merit a separate study.

¹⁷ A slightly different version of this hierarchy was already postulated by Widmer & Zemp (2017).

¹⁸ Galo is a Tani language that is spoken by 30,000–40,000 people in Arunachal Pradesh, Northeast India (Post 2007). See Post (2013) for a detailed analysis of the Galo egophoricity system.

(21) Kathmandu Newar (Hargreaves 2005)

- a. *Ji mhiga wan-ā.*
1SG yesterday go-PST.EGO
'I went yesterday.' (8)
- b. *Ji tã: cāy-ā.*
1SG anger feel-PST.EGO
'I felt angry.' (27)
- c. *Ji tyānul-a.*
1SG be.tired-PST.ALLO
'I got tired.' (21)
- d. *Ji bhukāe bwa:-gu cāl-a.*
1SG earth quake.PRS.ALLO-NMLZ feel-PST.ALLO
'I felt the earth quake.' (24)
- e. *Ji mhiga then-a.*
1SG yesterday arrive-PST.ALLO
'I arrived yesterday.' (13)
- f. *Wã: ji-ta khyāt-a.*
3SG.ERG 1SG-DAT frighten-PST.ALLO
'She frightened me.' (41)

As the example sentences illustrate, the Kathmandu Newar egophoric marker *-ā* expresses actional involvement in combination with agent arguments (21a) and certain endoceptive experiencers (21b), although some endoceptive experiencers are not associated with egophoric marking (21c). Exoceptive experiencers (21d), nonvolitional agents (21e), and undergoers (21f) are not associated with egophoric marking.

The following example sentences illustrate the use of the perfective egophoric marker *-tó* in Galo expressing actional involvement.

(22) Galo (Post 2013)

- a. *Nó ²acín dō-tó-bá.*
1SG cooked.rice eat-EGO-PFV.DIR
'I've just had my meal (I know, because I experienced it).' (114)
- b. *Nó kando-tó-bá.*
1SG hungry-EGO-PFV.DIR
'I got hungry (I know, I experienced it).' (123)
- c. *Nó koodāa tokkà ò-lòo-tó-bá.*
1SG balcony ABL.UP fall.from.height-downward-EGO-PFV.DIR
'I fell from the balcony (I know, I experienced it).' (123)

As the examples illustrate, the perfective egophoric marker *-tó* expresses actional involvement with volitional agents (22a), endoceptive experiencers (22c), and nonvolitional agents (22c). Post (2013) does not provide examples of the perfective construction in which the assertor assumes the role of an exopathic experiencer or an undergoer. However, he states that verbs like *kāa*- 'see' and *nampāa*- 'catch (the) smell (of something)' (i.e. verbs taking an exopathic experiencer) require egophoric marking if their experiencer argument and the assertor are coreferential. On a more general note, Post notes that the egophoric marker occurs whenever the speaker acts as the "subject" of a predicate in a declarative clause. His account of the system thus suggests that egophoric marking is obligatory whenever the assertor assumes the role of the most agent-like participant of a predicate but impossible if the assertor assumes the role of the most patient-like participant of a (bivalent) predicate.

The following table illustrates which semantic roles are associated with privileged access due to actional involvement in combination with past tense / perfective egophoric markers in the relevant languages. As

previously mentioned, Shigatse Tibetan and Bunan each display an actor-egophoric and an undergoer-egophoric marker in the past / perfective paradigm.

Table 8. Egophoric marking and semantic roles in the past / perfective constructions of four Tibeto-Burman languages

	Shigatse Tibetan	Kathmandu Newar	Bunan	Galo
AGT _[+VOL]	-pa=jĩ	-ā	-et ~ -men	-tō
EXP _{ENDO}	=tɕu	-ā / -	-et ~ -men	-tō
EXP _{EXO}	=tɕu	-	-	-tō
AGT _[-VOL]	=tɕu	-	-	-tō
UND	=tɕu	-	-ku	-

As can be seen from Table 8, the functional scope of individual egophoric markers varies considerably across these four languages. In Shigatse Tibetan, the perfective actor-egophoric marker only expresses privileged access due to actional involvement in combination with volitional agents. In Kathmandu Newar and Bunan, the corresponding egophoric markers have a somewhat wider functional range, comprising both volitional agents and at least some endopathic experiencers. In Galo, finally, the perfective egophoric marker covers volitional agents, endopathic experiencers, exopathic experiencers, and nonvolitional agents (i.e., it expresses actional involvement in combination with the most agent-like argument of a predicate). Shigatse Tibetan and Bunan additionally display undergoer-egophoric markers, which again strongly differ from each other in terms of the semantic roles they can cover. The Shigatse Tibetan undergoer-egophoric marker expresses privileged access due to actional involvement in combination with all semantic roles except volitional agents, while the Bunan undergoer-egophoric marker only covers undergoers.

In spite of the striking differences between these four languages, there are some potential distributional tendencies emerging from Table 8. First, if a language has an actor-egophoric marker, the volitional agent appears to be the semantic role that is most likely to be associated with the marking of actional involvement. Second, if a language only has an undergoer-egophoric marker, the undergoer appears to be the semantic role that is most likely to be associated with the marking of actional involvement. Third, the existence of an undergoer-egophoric marker appears to presuppose the existence of an actor-egophoric marker. It goes without saying that such tendencies should be confirmed or contradicted by a much more comprehensive in-depth survey of the Tibeto-Burman family than what we sketch in the present article.

The ranking of semantic roles on the hierarchy given in Figure 2 can be explained in terms of the cognitive exclusiveness of mental states that they are associated with (see Widmer & Zemp 2017). The highest-ranked semantic roles are volitional agents and endopathic experiencers, that is to say, arguments that are associated with mental states that are only directly accessible to the person experiencing them. As one moves further down the hierarchy, the semantic roles become associated with less exclusive and less self-initiated mental states. These lower-ranked semantic roles may still be the associated with the marking of actional involvement, as the cases of Shigatse Tibetan, Bunan, and Galo illustrate. However, if they are, they tend to be associated with a dedicated undergoer-egophoric marker that covers non-agentive semantic roles.

4.2 Modeling

In the following subsections, we use the hierarchy introduced in Figure 2 to model how the distribution of egophoric markers maps onto the identified semantic roles and the explicit participation of the assertor. For this purpose, we combine the hierarchy of semantic roles with the distinction between events in which the assertor is a participant (ASS_[+PART]) and events in which the assertor is not a participant (ASS_[-PART]) and plot it against the distinction of actional involvement vs. epistemic involvement, as in Figure 3 below.

Participation	Semantic roles	Involvement	
		Actional	Epistemic
ASS _[+PART]	AGT _[+VOL]		
	EXP _{ENDO}		
	EXP _{EXO}		
	AGT _[-VOL]		
	UND		
ASS _[-PART]	—		

Figure 3. The assessor's (non-)participation, semantic roles, and involvement

Such a figure allows us to schematically represent the circumstances under which egophoric marking can occur. The column “participation” allows us to distinguish between contexts in which the assessor directly participates in an event and contexts in which this is not the case. This distinction is relevant for egophoricity marking in Bunan, where in the variety spoken by younger speaker generations the past actor-egophoric marker *-et ~ -men* can only express epistemic involvement in contexts in which the assessor directly participates in an event (see § 3.2). The column “semantic roles” allows us to specify in more detail the contexts in which egophoric markers occur. This row is relevant for both Shigatse Tibetan and Bunan, in which egophoric markers expressing actional and – to a lesser extent – epistemic involvement are sensitive to semantic roles (see § 4.1.2). The column “involvement”, finally, allows us to specify whether an egophoric marker can express actional involvement, epistemic involvement, or both types of involvement in a given context.¹⁹ We use this representation in the next subsection to compare the egophoricity markers of Shigatse Tibetan and Bunan.

4.2.1 Modeling Shigatse Tibetan egophoricity markers

In Shigatse Tibetan, the imperfective egophoric form *-kī=jæ* can either express actional or epistemic involvement. The expression of actional involvement is restricted to prototypically controllable events, in which case the marker profiles the assessor as the volitional agent of a specific, individual event (4a). In such contexts, *-kī=jæ* receives a progressive interpretation. The expression of epistemic involvement is possible in combination with all event types and profiles the assessor in her / his role as a knower who is well-acquainted with the habitual occurrence of an event (4a)–(4b), (5b)–(5c). In such contexts, *-kī=jæ* usually receives a habitual interpretation. Note, however, that the epistemic construal of *-kī=jæ* is only possible if it can be construed as the result of a cause-effect relationship. Consider Figure 4 below.

Participation	Semantic roles	Involvement	
		Actional	Epistemic
ASS _[+PART]	AGT _[+VOL]	<i>-kī=jæ</i>	<i>-kī=jæ</i>
	EXP _{ENDO}	—	<i>-kī=jæ</i>
	EXP _{EXO}	—	<i>-kī=jæ</i>
	AGT _[-VOL]	—	<i>-kī=jæ</i>
	UND	—	<i>-kī=jæ</i>
ASS _[-PART]	—	—	<i>-kī=jæ</i>

Figure 4. Modeling Shigatse Tibetan imperfective egophoricity markers

¹⁹ Since the following section focuses on egophoric markers, we do not consider the distribution of allophoric forms here.

Egophoricity marking is more complex in the perfective aspect, where we encounter two egophoric forms: $-pa=j\bar{i}$ and $=t\epsilon u$. The former expresses privileged access due to actional involvement in combination with prototypically controllable events and profiles the assertor in the role of a volitional agent of a specific, individual event. The resulting verb forms are thus associated with a punctual-perfective reading (9). Note that the marker cannot express epistemic involvement. This is evidenced by the fact that the marker cannot be used to profile the assertor in the role of a knower who has privileged access to the knowledge about an event. The marker $=t\epsilon u$ has a much wider distribution; it can express privileged access due to actional involvement in combination with the semantic roles EXP_{ENDO} (10a), EXP_{EXO} (10b), $AGT_{[-VOL]}$ (10c), and UND (10d). In such contexts, it profiles the speaker as an undergoer of a specific perfective event. Accordingly, this use of the marker $=t\epsilon u$ is associated with a punctual-perfective reading. The marker can also express epistemic involvement in contexts in which the assertor does not assume the semantic role $AGT_{[+VOL]}$ (11a)–(11b). In such contexts, $=t\epsilon u$ profiles the assertor in the role of a knower who has privileged access to the knowledge about an event because (s)he has experienced the relevant process in the past. This often presupposes that the assertor has repeatedly observed the event in question. As a consequence, this use of $=t\epsilon u$ is usually associated with a habitual past reading. Note that the relevant event does not have to be construed as the result of a cause-effect relationship for $=t\epsilon u$ to express epistemic involvement as is the case with the imperfective marker $-k\bar{i}=j\alpha$ (see above). Consider Figure 5 below.

Participation	Semantic roles	Involvement	
		Actional	Epistemic
ASS _[+PART]	AGT _[+VOL]	$pa=j\bar{i}$	—
	EXP _{ENDO}	$=t\epsilon u$	$=t\epsilon u$
	EXP _{EXO}	$=t\epsilon u$	$=t\epsilon u$
	AGT _[-VOL]	$=t\epsilon u$	$=t\epsilon u$
	UND	$=t\epsilon u$	$=t\epsilon u$
ASS _[-PART]	—	—	$=t\epsilon u$

Figure 5. Modeling Shigatse Tibetan perfective egophoricity markers

4.2.2 Modeling Bunan egophoricity markers

The Bunan present-tense egophoric markers $-ek$ (SG) / $-^hek$ (PL) can only express privileged access due to actional involvement in combination with the semantic roles $AGT_{[+VOL]}$ (7a) and EXP_{ENDO} (7b). The markers cannot express privileged access due to epistemic involvement. This is evidenced by the fact that the markers cannot be used to profile the assertor in the role of a knower who has privileged access to the knowledge about an event. This is depicted in Figure 6.

Participation	Semantic roles	Involvement	
		Actional	Epistemic
ASS _[+PART]	AGT _[+VOL]	$-ek / -^hek$	—
	EXP _{ENDO}	$-ek / -^hek$	—
	EXP _{EXO}	—	—
	AGT _[-VOL]	—	—
	UND	—	—
ASS _[-PART]	—	—	—

Figure 6. Modelling Bunan present egophoricity markers

In the past tense, there is variation in the use of egophoric forms between the younger speaker generations and the oldest speaker generation. In the variety of the former, the past-tense egophoric marker *-et ~ -men* can express privileged access due to actional involvement in combination with the semantic roles AGT_[+VOL] (14a) and EXP_{ENDO} (14b). The resulting verb forms express a past tense. In addition, the marker can express privileged access due to epistemic involvement in combination with propositions in which the assertor acts as the most agent-like participant (15a)–(15b). In such contexts, the assertor is portrayed in the role of a knower who has privileged access to the knowledge about an event because (s)he experienced the relevant process in the past. As a consequence, the resulting verb forms express an experiential aspect. Consider Figure 7 below.

Participation	Semantic roles	Involvement	
		Actional	Epistemic
ASS _[+PART]	AGT _[+VOL]	<i>-et ~ -men</i>	<i>-et ~ -men</i>
	EXP _{ENDO}	<i>-et ~ -men</i>	<i>-et ~ -men</i>
	EXP _{EXO}	—	<i>-et ~ -men</i>
	AGT _[-VOL]	—	<i>-et ~ -men</i>
	UND	—	—
ASS _[-PART]	—	—	—

Figure 7. Modeling Bunan past egophoricity markers (innovative)

In the more conservative variety of the oldest speaker generation, the past-tense egophoric marker *-et ~ -men* can express privileged access due to epistemic involvement in combination with any proposition in which the assertor occurs as a participant (15c)–(15d). As in the innovative variety spoken by younger speaker generations, the past-tense egophoric marker expresses an experiential aspect in such contexts. Furthermore, the variety of the oldest speaker generation features an undergoer-egophoric marker *-ku*. This marker expresses actional involvement in combination with the semantic role of an undergoer (16a)–(16b), but cannot express epistemic involvement. Note that the suffix is not obligatory and is in fact often omitted. Consider Figure 8 below.

Participation	Semantic roles	Involvement	
		Actional	Epistemic
ASS _[+PART]	AGT _[+VOL]	<i>-et ~ -men</i>	<i>-et ~ -men</i>
	EXP _{ENDO}	<i>-et ~ -men</i>	<i>-et ~ -men</i>
	EXP _{EXO}	—	<i>-et ~ -men</i>
	AGT _[-VOL]	—	<i>-et ~ -men</i>
	UND	<i>(-ku)</i>	<i>-et ~ -men</i>
ASS _[-PART]	—	—	<i>-et ~ -men</i>

Figure 8. Modeling Bunan past egophoricity markers (conservative)

4.2.3 A comparison

In the present tense / imperfective aspect, Shigatse Tibetan and Bunan egophoric markers differ strongly from each other with regard to the parameter of involvement. The Shigatse imperfective egophoric form *-kī=jæ* can express privileged access due to actional involvement in combination with the semantic role AGT_[+VOL] and privileged access due to epistemic involvement if the relevant event can be construed as the result of

a cause-effect relationship. The Bunan present-tense egophoric forms *-ek* / *-^hek*, in turn, can only express privileged access due to actional involvement in combination with the semantic roles AGT_[+VOL] and EXP_{ENDO} but not privileged access due to epistemic involvement. Accordingly, the Bunan egophoric forms *-ek* / *-^hek* can express privileged access due to actional involvement with a wider range of semantic roles, but are at the same time more restricted in the sense that they cannot express privileged access due to epistemic involvement.

These differences most probably reflect the distinct diachronic origins of the two egophoricity systems. The Shigatse Tibetan egophoric form goes back to a periphrastic construction that consisted of a nominalizer and a copula. The Bunan egophoric endings *-ek* / *-^hek*, in turn, were once first person subject agreement forms (Widmer 2015; Widmer & Zemp 2017). The more restricted functional scope of *-ek* / *-^hek* is a consequence of the fact that these morphemes were already tied to specific semantic roles when they were still subject agreement markers. The Shigatse form *-kī=jæ*, which never expressed agreement, is not restricted in such a way.

With regard to the past tense / perfective aspect paradigm, both Shigatse and (conservative) Bunan have two egophoric markers, viz. an actor-egophoric form and an undergoer-egophoric form. The two languages differ considerably as to the functional range of these markers. In Shigatse Tibetan, the actor-egophoric form *-pa=jī* is exclusively associated with agentive contexts and expresses privileged access due to actional involvement in combination with volitional agents. The undergoer-egophoric form *=təu*, in turn, can express privileged access due to actional involvement in combination with all semantic roles except volitional agents and privileged access due to epistemic involvement in combination with propositions in which the assertor does not assume the role of a volitional agent. In Bunan, we encounter a rather different situation. Here, it is the undergoer-egophoric *-ku* form that is restricted in the sense that it can only express privileged access due to actional involvement in combination with undergoer participants. The actor-egophoric form, in turn, can express privileged access due to actional involvement in combination with volitional agents and endopathic experiencers as well as privileged access due to epistemic involvement in all other contexts. The innovative paradigm of younger Bunan speakers differs from the paradigm of old speakers in two respects. First, the former has lost the undergoer-egophoric form *-ku*. Second, in this variety the marker *-et* ~ *-men* can only express privileged access due to actional involvement in contexts in which the assertor acts as the most agent-like participant.

5 Concluding remarks

Assuming that egophoricity and evidentiality are two distinct grammatical categories, we have argued that some important sources of the cross-linguistic variation found in egophoricity systems of Tibeto-Burman languages can be captured with two analytical tools, viz. an epistemic role that we refer to as the “assertor” (see Creissels 2008) and a parameter of variation that we refer to as “involvement” (see Bickel’s 2008 related “scope”). The notion of the assertor allows us to capture the fact that egophoricity markers may relate to different SAPs depending on the type of speech act under scrutiny. The involvement parameter allows us to capture the fact that egophoricity markers may express privileged access due to both actional and epistemic involvement. In order to model the two types of involvement in a more detailed manner, we have additionally postulated a set of five roles based on evidence from the Tibeto-Burman languages Shigatse Tibetan, Bunan, Kathmandu Newar, and Galo. The relevant roles are volitional agent, endopathic experiencer, endopathic experiencer, nonvolitional agent, and undergoer. Equipped with these notions, we have explored egophoricity in Shigatse Tibetan and Bunan in more detail and shown that (i) that egophoric markers vary significantly in terms of their functional scope between the two languages and (ii) that there is considerable variation between different TAM paradigms within each language. The functional properties of Bunan egophoric forms additionally vary across varieties spoken by different speaker generations. This indicates that the typological model developed here can be employed to capture synchronic variation on the one hand and to model egophoricity in a diachronic perspective on the other.

Overall, the results of our study imply that the notion of the assertor and the parameters of involvement and semantic roles are crucial concepts for comparing the egophoricity systems of Tibeto-Burman

languages. In addition, our study suggests that it is helpful to treat egophoricity and evidentiality as separate grammatical categories when conducting typological research on egophoricity. This makes it possible to directly compare egophoricity systems that are based on a binary contrast of egophoric vs. allophoric (e.g. the Bunan present paradigm) to egophoricity systems that are structurally more complex and additionally involve evidential contrasts (e.g. the Shigatse imperfective and perfective paradigms).

While our model is able to capture basic differences between individual egophoricity markers and their interaction with evidentials, future research will undoubtedly uncover further parameters along which egophoricity markers in Tibeto-Burman languages may vary, which will call for a refinement of the approach presented in this paper. It remains to be seen whether the proposed set of semantic roles will have to be extended, and whether the syntactification of this parameter (i.e. the expression of privileged access due to actional involvement in combination with specific grammatical relations rather than semantic roles) is also relevant for Tibeto-Burman. It also remains an open question whether the notion of epistemic involvement should be split up into further subparameters. Our study suggests that there is a considerable amount of crosslinguistic variation in this subdomain of egophoricity marking, both with regard to the aspectual and pragmatic connotations that are associated with egophoric markers expressing epistemic involvement and with regard to the semantic restrictions that such markers may be subject to. Further research is needed to gain a better understanding of these phenomena and how they can be integrated into a more comprehensive typological model.

Going beyond the Tibeto-Burman language family, it remains to be seen whether the typological approach proposed here can be extended to egophoricity systems in non-Tibeto-Burman languages, e.g. languages from the Caucasus, northwestern South America, and Papua New-Guinea. In this context, a particularly interesting question is whether there are large-scale distributional trends of the typological parameters proposed in this article. Is the distinction between actional and epistemic involvement equally important in all languages that display egophoricity systems? Or are there areas / language families in which one type of involvement is clearly favored over the other? Another open question is whether the tendency of egophoricity markers to be associated with agentive semantic roles is a characteristic trait of Tibeto-Burman languages or whether this trend can also be found in other languages. Future research will hopefully allow us to resolve these questions and to refine our understanding of the typological variability of egophoricity systems.

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Abbreviations

1 first person, 2 second person, 3 third person, ACT actor, ADD additive, ADDINV address inversion, AGR agreement, AGT agent(ive), ALL allative, ALLO allophoric, ASS assertor, ASSER assertive, COND conditional, CVB converb, DAT dative, DEF definite, DETR detransitive, DIR direct, EGO egophoric, ENDO endopathic, ERG ergative, EX existential copula, EXO exopathic, EXP experiencer, FOC focus, GEN genitive, HON honorific, ICVB imperfective converb, INDEF indefinite, INDIR indirect, IPFV imperfective, INTR intransitive, MID middle, NMLZ nominalizer, NEG negation, PFV perfective, PRS present, PST past, Q question(s), QUOT quotative,

SAP speech-act participant, SG singular, SIM simultaneous, TAM tense-aspect-modality, TR transitive, UND undergoer.

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